

1-13. (CANCELED)

14. (CURRENTLY AMENDED) A range-change transmission comprising:

an input shaft (4);

a gearshift sleeve (42), having radially outer teeth (48), being rotationally fixed to and axially slidable along an end of the input shaft (4) between at least first and second positions;

a first solid counter shaft (12) and a second solid counter shaft (14) each having a first gear wheel (8, 10) and a second gear wheel (16, 18) ~~fixedly secured thereto~~ integrally formed therewith;

a loose gear wheel (6), having radially inner teeth (44) and radially outer teeth, being rotationally supported by the input shaft (4);

~~[[the]]~~ a drive output shaft (22) being coaxially aligned with ~~[[an]]~~ the input shaft (4), and the drive output shaft (22) having radially inner teeth (46) at an end located adjacent the input shaft (4);

an output gear wheel (20) being ~~fixedly secured to~~ integrally formed with the drive output shaft (22), and the output gear wheel (20) engages the second gear wheels (16, 18) of the first counter shaft (12) and the second counter shaft (14);

in the first position of the gearshift sleeve (42), the gearshift sleeve (42) being at least partially located between the input shaft (4) and the loose gear wheel (6) such that the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (44) of the loose gear wheel (6) and the input shaft (4) drives the output shaft (22) via the first and the second counter shafts (12, 14);

in the second position of the gearshift sleeve (42), the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (46) of the drive output shaft (22) so that the input shaft (4) directly drives the drive output shaft (22) via the gearshift sleeve (42); and

first and second pressure combs (50, 52, 54, 56), being secured to and solely carried by opposite sides of the output gear wheel (20), maintain the output gear wheel (20) in axial alignment with the second gear wheels (16, 18) of the first and the second counter shafts (12, 14).

15. (CURRENTLY AMENDED) The ~~variable-speed gearbox~~ range-change transmission according to claim 14, wherein ~~[[the]]~~ third and fourth pressure combs (54, 56), carried by opposed sides of the loose gear wheel (6), maintain the loose gear wheel (6) in axial alignment with the first gear wheels (8, 10) of the first and the second counter shafts (12, 14).

16. (CURRENTLY AMENDED) The ~~variable-speed gearbox~~ range-change transmission according to claim 14, wherein the first and the second counter shafts (12, 14) are maintained in axial position, relative to the drive output shaft (22), by at least the first and the second pressure combs (50, 52).

17. (CURRENTLY AMENDED) The ~~variable-speed gearbox~~ range-change transmission according to claim 14, wherein double conical-roller bearings (26, 28) radially and axially support the drive output shaft (22) within a gearbox housing (30).

18. (CURRENTLY AMENDED) The ~~variable-speed gearbox~~ range-change transmission according to claim 14, wherein the first and the second counter shafts (12, 14) are only radially supported by a housing (30).

19. (CURRENTLY AMENDED) The ~~variable-speed gearbox~~ range-change transmission according to claim 14, wherein the first and the second counter shafts (12, 14) are only radially supported by a housing (30) via roller bearings (34, 36, 38, 40).

20. (CURRENTLY AMENDED) A range-change transmission comprising:
 an input shaft (4);
 a gearshift sleeve (42), having radially outer teeth (48), being rotationally fixed to and axially slidable along an end of the input shaft (4) between at least first and second positions and a neutral position;

a first solid counter shaft (12) and a second solid counter shaft (14) each having an integrally formed first gear wheel (8, 10) and an integrally formed second gear wheel (16, 18) ~~fixedly secured thereto~~;

a loose gear wheel (6), having radially inner teeth (44) and radially outer teeth, being spaced from and surrounding the input shaft (4);

~~[[the]]~~ a drive output shaft (22) being coaxially aligned with ~~[[an]]~~ the input shaft (4), the drive output shaft (22) having radially inner teeth (46) at an end

located adjacent the input shaft (4) and double conical-roller bearings (26, 28) radially and axially support the drive output shaft (22) within a housing (30);

an output gear wheel (20) being fixedly secured to the drive output shaft (22), and the output gear wheel (20) engaging the second gear wheels (16, 18) of the first counter shaft (12) and the second counter shaft (14);

in the first position of the gearshift sleeve (42), the gearshift sleeve (42) being at least partially located between the input shaft (4) and the loose gear wheel (6) such that the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (44) of the loose gear wheel (6) and the input shaft (4) drives the output shaft (22) via the first and the second counter shafts (12, 14);

in the second position of the gearshift sleeve (42), the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (46) of the drive output shaft (22) so that the input shaft (4) directly drives the drive output shaft (22) via the gearshift sleeve (42);

double conical-roller bearings (26, 28) radially and axially support the drive output shaft (22) within a gearbox housing (30);

a first pair of pressure combs (54, 56) are solely carried by opposed sides of the loose gear wheel (6) for maintaining the loose gear wheel (6) in axial alignment with the first gear wheels (8, 10) of the first and the second counter shafts (12, 14), and the first pair of pressure combs (54, 56) are laterally located on outer teeth of the loose gear wheel (6) for solely centering the loose gear wheel (6) relative to the first gear wheels (8, 10) of the first and the second counter shafts (12, 14); and

a second pair of pressure combs (50, 52) are solely carried by opposed sides of the output gear wheel (20) for maintaining the output gear wheel (20) in axial alignment with the second gear wheels (16, 18) of the first and the second counter shafts (12, 14), and the second pair of pressure combs (50, 52) are laterally located on outer teeth of the gear wheel (20) of the drive output shaft (22).

21. (CURRENTLY AMENDED) The ~~variable-speed gearbox range-change transmission~~ according to claim 20, wherein the first pair of pressure combs (54, 56)

are arranged closely adjacent to the outer teeth of the loose gear wheel (6) and have lateral pressure surfaces which engage with lateral pressure surfaces on the first gear wheels (8, 10) of the first and the second counter shafts (12, 14) and the second pair of pressure combs (50, 52) are arranged closely adjacent the outer teeth of the output gear wheel (20) and have lateral pressure surfaces which engage with lateral pressure surfaces on the second gear wheels (16, 18) of the first and the second counter shafts (12, 14).

22. (CURRENTLY AMENDED) A range-change transmission comprising:

an input shaft (4);

a gearshift sleeve (42), having radially outer teeth (48), being rotationally fixed to and axially slidable along an end of the input shaft (4) between at least first and second positions and a neutral position;

a first solid counter shaft (12) and a second solid counter shaft (14) each ~~[[having]]~~ consisting solely of an integrally formed first gear wheel (8, 10) and an integrally formed second gear wheel (16, 18) ~~fixedly secured thereto~~;

a loose gear wheel (6), having radially inner teeth (44) and radially outer teeth, being rotatably supported by the input shaft (4) and axially movable therealong;

~~[[the]]~~ a drive output shaft (22) being coaxially aligned with ~~[[an]]~~ the input shaft (4), the drive output shaft (22) having radially inner teeth (46) at a first end located adjacent the input shaft (4) and double conical-roller bearings (26, 28) radially and axially support the drive output shaft (22) within a housing (30);

an output gear wheel (20) being fixedly secured to the drive output shaft (22), and the output gear wheel (20) engaging the second gear wheels (16, 18) of the first counter shaft (12) and the second counter shaft (14);

in the first position of the gearshift sleeve (42), the gearshift sleeve (42) being at least partially located between the input shaft (4) and the loose gear wheel (6) such that the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (44) of the loose gear wheel (6) and the input shaft (4) drives the output shaft (22) via the first and the second counter shafts (12, 14);

in the second position of the gearshift sleeve (42), the gearshift sleeve (42) being at least partially received within a the first end of the drive output shaft (22) and the loose gear wheel (6) such that the radially outer teeth (48) of the gearshift sleeve (42) engage with the radially inner teeth (46) of the drive output shaft (22) so that the input shaft (4) directly drives the drive output shaft (22) via the gearshift sleeve (42);

the drive output shaft (22) being axially mounted in the housing (30) by a pair of conical-roller bearings (26 and 28);

the first and the second counter shafts (12, 14) are only radially supported by a housing (30);

a first pair of pressure combs (54, 56) are carried by and directly contact opposed sides of the loose gear wheel (6) for maintaining the loose gear wheel (6) in axial alignment with the first gear wheels (8, 10) of the first and the second counter shafts (12, 14), and the first pair of pressure combs (54, 56) are laterally located on outer teeth of the loose gear wheel (6) for solely centering the loose gear wheel (6) relative to the first gear wheels (8, 10) of the first and the second counter shafts (12, 14) and concentrically with respect to the input shaft (4) such that the loose gear wheel (6) can move axially relative to the input shaft (4); and

a second pair of pressure combs (50, 52) are carried by and directly contact opposed sides of the output gear wheel (20) for maintaining the output gear wheel (20) in axial alignment with the second gear wheels (16, 18) of the first and the second counter shafts (12, 14), and the second pair of pressure combs (50, 52) are laterally located on outer teeth of the gear wheel (20) of the drive output shaft (22).